



PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re application of

Docket No: Q60559

Masao TSURUTA

Appln. No.: 09/822,839

Group Art Unit: 3724

Confirmation No.: 8477

Examiner: Clarke F. Dexter

Filed: April 2, 2001

For: APPARATUS FOR AND METHOD OF MANUFACTURING SHEETS

APPELLANT'S BRIEF ON APPEAL UNDER 37 C.F.R. §1.192

MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

In accordance with the provisions of 37 C.F.R. §1.192, Appellant submits the following:

I. REAL PARTY IN INTEREST

The real party in interest is Fuji Photo Film Co., Ltd., the owner by assignment of all rights, title and interest in the present application.

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II. RELATED APPEALS AND INTERFERENCES

There are no related appeals or interferences with respect to the present application.

III. STATUS OF CLAIMS

Claims 1-4 are pending in the application. Claims 1, 2 and 4 stand finally rejected. Claim 3 is withdrawn from consideration.

IV. STATUS OF AMENDMENTS

The present application was filed on April 2, 2001, with claims 1-16. In an Office Action dated December 12, 2002, the Examiner withdrew claims 3 and 5-16 from consideration as being directed to a non-elected invention. An Amendment Under 37 C.F.R. §1.111 was filed on March 17, 2003, amending claims 1-3. An Amendment Under 37 C.F.R. §1.111 was filed on September 5, 2003, canceling claims 5-16. An Office Action was mailed on November 18, 2003, finally rejecting claims 1, 2 and 4. On January 27, 2004, Appellant filed a Response, but did not amend any of the claims. Accordingly, claims 1, 2 and 4 are as presented before the November 18, 2003, Final Office Action.

V. **SUMMARY OF THE INVENTION**

The present invention as defined by the pending claims, claims 1, 2 and 4, relates to an apparatus for manufacturing a plurality of sheets by stacking and feeding the sheets (as in claim 1). According to an illustrative, non-limiting embodiment, there is provided an apparatus for manufacturing sheets efficiently by a unique combination of features including means for turning and inverting sheets in desired directions. (See page 3, line 27-page 4, line 3.) As shown in Figure 1, a sheet manufacturing apparatus 10 comprises a supply unit 12, an aligning unit 14, a first cutting unit 16, a second cutting unit 18, a first transfer unit 20, an inverting unit 22, a turning unit 24, a second transfer unit 26 and a discharge unit 28. (See page 6, lines 14-20.) These elements may be successively arranged in a feed direction as indicated by the arrow (A) in Figure 1 along which the sheets are manufactured. (See page 6, lines 18-20.)

The first transfer unit 20 has a pair of transfer tables 66a, 66b for transferring films F to the inverting unit 22. (See page 8, lines 10-12.) The inverting unit 22 has upper and lower sandwiching plates 70a, 70b for sandwiching and vertically inverting films F that have been transferred by the first transfer unit 20. (See page 8, lines 15-18.) The turning unit 24 has upper and lower sandwiching plates 72a, 72b for sandwiching films F that have been transferred from the inverting unit 22 by a second transfer unit 26 and for turning the films F in the plane thereof. (See page 8, lines 19-22.)

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The second transfer unit 26 has a pair of transfer tables 74a, 74b for transferring films F from the inverting unit 22 to the discharge unit 28. (See page 8, lines 23-25.) The discharge unit 28 has a pair of support bases 78a, 78b that support the films F. (See page 9, lines 2-3.)

The first cutting unit 16 has a pair of support bases 52a, 52b with flat surfaces for holding a stack of films F thereon. (See page 7, lines 19-21.) The first cutting unit 16 also has a pair of cutters 54a, 54b disposed on a side of the support base 52b for cutting off two adjacent corners of the films F into arcuate corners. (See page 7, lines 21-24.) The second cutting unit 18 has a pair of support bases 60a, 60b having flat surfaces for holding a stack of films F thereon. (See page 8, lines 2-4.) The second cutting unit 18 also has a pair of cutters 62a, 62b disposed on a side of the support base 60a for cutting off two adjacent corners of the films F into arcuate corners. (See page 8, lines 4-7.)

It will be appreciated that the above-noted description is given as a non-limiting example.

VI. ISSUES

- Whether claims 1 and 4 should stand rejected under 35 U.S.C. §103(a) as being unpatentable over Monsees (U.S. 5,743,374) in view of Fujishiro et al. (U.S. 3,595,370 [hereinafter "Fujishiro"]).
- Whether claim 2 should stand rejected under 35 U.S.C. §103(a) as being unpatentable over Monsees in view of Fujishiro and further in view of Japanese Publication 1-210298.

VII. GROUPING OF CLAIMS

The claims of the present application may properly be considered in two groups that are separately patentable and, therefore, do not stand or fall together.

The proper grouping of the claims is as follows:

Group 1: Claims 1 and 4 do not stand or fall together.

Group 2: Dependent claim 2 stands alone.

VIII. ARGUMENTS

As an initial matter, Appellant acknowledges that all of the claims relate to an apparatus for manufacturing a plurality of sheets by stacking and feeding the sheets.

However, as set forth below, each group is separately patentable because of the features therein; therefore, they do not stand or fall together.

Group 1: Claims 1 and 4 do not stand or fall together because of their respective novel and unobvious features.

Group 2: Dependent claim 2 stands alone as it recites a cutting unit disposed between supply means and turning means, for cutting off corners of sheets.

A. *Whether, under 35 U.S.C. §103(a), one would have been motivated to combine the teaching of Monsees in view of Fujishiro.*

The Examiner recognizes that Monsees does not teach the claimed means for turning the stacked sheets in a plane thereof. Thus, the Examiner attempts to argue that one of ordinary skill in the art would have been motivated to add the turning mechanism of Fujishiro to Monsees.

Monsees is drawn to a device for flipping (or inverting) a stack of carton blanks. (See Abstract.) The carton blanks are used for making boxes. The device is used to prevent a human worker from having to flip the stack of carton blanks because such action places great stress on the machine operator's wrists and is the source of repetitive motion or carpal tunnel syndrome. (See col. 1, lines 15-20.) The Examiner acknowledges that Monsees does not disclose the claimed "means for turning" (e.g.,

element 24 of Figure 1). Monsees also does not disclose a need to have means for turning.

The Examiner cites Fujishiro for allegedly disclosing a means for turning. Fujishiro is drawn to an apparatus for stacking and transferring bundles of printed sheets in a "super-high-speed" rolling press where a number of bundles are accumulated upon a turntable. (*See Abstract.*) The bundles are arranged in opposite directions to each other. (*See col. 1, lines 54-60; and Figure 2.*) The action of the turntable is shown in Figures 6-7. The device provides a transfer of the alternately positioned, stacked bundles in harmonization with the super-high-speed of the rolling press. (*See col. 1, lines 21-25.*)

I. ONE WOULD NOT HAVE BEEN MOTIVATED TO THE COMBINE THE TEACHINGS OF MONSEES AND FUJISHIRO SO AS TO DERIVE THE CLAIMED FEATURES

Appellant maintains that the Examiner has not provided, nor do the references provide, any teaching or suggestion that would have motivated one skilled in the art to randomly combine the turntable 10 of Fujishiro with Monsees. The claimed combination of elements will contribute an efficient manufacturing apparatus to the public not presently furnished by the prior art, as would be understood from the specification. It is

well established that the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. (*See In re Mills*, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990).) Here, there is no suggested desirability for making the Examiner's proposed combination.

As the Federal Circuit reminded us, the USPTO is held to a *rigorous* standard when trying to show that an invention would have been obvious in view of the combination of two or more references. (*See In re Sang Su Lee*, 2002 U.S. App. LEXIS 855, *10 (Fed. Cir. 2002), *citing*, e.g., *In re Dembiczkak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999) ("Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references."))

The Federal Circuit goes on to emphasize that the "need for specificity pervades this authority." (*See In re Sang Su Lee* at *10-*11 (emphasis added), *citing In re Kotzab*, 217 F.3d 1365, 1371, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) ("particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed."))

Appellant respectfully submits that the current grounds of rejection do not satisfy the Federal Circuit's *rigorous* standard for demonstrating that the claimed invention would have been obvious in view of the combination of Monsees and Fujishiro. In other words, Appellant submits that the references do not provide any teaching that would have motivated one of ordinary skill in the art to combine the mechanism of Monsees with the turning mechanism disclosed by Fujishiro.

It is respectfully pointed out that the alleged motivation for the combination further evidences the insufficiency of the motivation. For example, the Examiner's proposed motivation for adding the turntable of Fujishiro to Monsees is to provide a specific orientation so that markings on a workpiece, such as instructions, logos, etc., are properly oriented. Contrary to the position set forth by the Examiner, Monsees makes absolutely no mention of any instructions, logos, etc. on the workpieces that would even remotely suggest to one of ordinary skill in the art that turning the workpieces of Monsees would be desirable.

The Examiner is essentially adding disclosure to Monsees. If such grounds of rejection were permissible, an inventor would not only have to overcome the prior art, but would also have to overcome the "inventive" contributions of the Examiner. Accordingly, Appellant maintains that the Examiner's rationale behind modifying Monsees is

not supported by the teachings of the prior art and that the cited prior art does not suggest the desirability of the Examiner's proposed combination.

II. THE EXAMINER HAS IMPROPERLY PICKED AND CHOSEN ELEMENTS

Appellant submits that a rejection cannot be predicated on the mere identification of individual components of claimed limitations. (*See In re Kotzab*, 217 F.3d 1365, 1371 (Fed. Cir. 2000).) Rather, particular findings must be made as to the reason the skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed. *Id.* In other words, without motivation or a suggestion in the references or in the art in general to do so, the Examiner cannot selectively choose individual components from Monsees and Fujishiro and combine them to arrive at the claimed invention.

In formulating the grounds of rejection, the Examiner has done nothing more than establish that a turning mechanism is a known apparatus. However, merely establishing that each element of a claimed combination was known in the prior art is not dispositive of patentability. Indeed, the Examiner has provided absolutely no evidence that would have led a person of ordinary skill in the art to specifically select the turning mechanism of Fujishiro and insert it into Monsees.

By combining Monsees with Fujishiro, the Examiner is clearly employing impermissible hindsight in arriving at the claimed invention. Appellant submits that the Examiner cannot establish a *prima facie* case of obviousness because of the lack of desirability to make the alleged combination.

B. Whether the combination of Monsees and Fujishiro would have taught or suggested each claimed feature.

I. THE COMBINATION OF MONSEES AND FUJISHIRO FAILS TO TEACH OR SUGGEST EACH CLAIMED FEATURE

Appellant submits that the combination fails to teach or suggest all of the claimed features. In particular, Appellant submits that each limitation set forth in claim 1 must be interpreted under 35 U.S.C. §112, sixth paragraph, as limited to the corresponding structure, material or acts described in the specification and equivalents thereof. (See *In re Donaldson*, 16 F.3d 1189, 29 USPQ 2d 1845 (Fed. Cir. 1994) (“[T]he ‘broadest reasonable interpretation’ that an examiner may give means-plus-function language is that statutorily mandated in [section 112] paragraph six. Accordingly, the PTO may not disregard the structure disclosed in the specification corresponding to such language when rendering a patentability determination.”))

Appellant respectfully submits that the combination of Monsees and Fujishiro fails to teach or suggest a mechanism that is similar in structure, materials or function to that of the means for supplying, means for turning, means for vertically inverting, means for discharging, and means for transferring, when the specification of the present invention is properly considered.

For example, as noted in the specification, a means for vertically inverting is provided that is structurally and functionally different than the applied elements of Monsees. The applied stack turner 10 of Monsees is disclosed as utilizing a clamp 53 (as shown in Figures 3A-3C), which follows a U-shaped path, up-and-over the stack turner 10, while being moved horizontally. The stack is then placed on a prefeeder P. (See col. 3, line 49-col. 4, line 20.)

An exemplary embodiment of the present invention discloses an inverting unit 22 having upper and lower sandwiching plates 70a, 70b for sandwiching and vertically inverting films F that have been transferred by the first transfer unit 20. (See page 8, lines 15-18.) The upper and lower sandwiching plates 70a, 70b have comb-toothed fingers 172a-172f and 174a-174f for holding films F, which can pass through grooves between the comb-toothed fingers 143a-143h of the transfer tables 66a, 66b of the first transfer unit 20. (See page 13, lines 8-20.)

Since the comb-toothed fingers 172a-172f and 174a-174f of the sandwiching plates 70a, 70b are aligned with the gaps between the comb-toothed fingers 143a-143h of the transfer bases 66a, 66b, the sandwiching plates 70a, 70b sandwich the films F without interference with the transfer bases 66a, 66b. (See page 19, lines 10-15.) After the sandwiching plates 70a, 70b have sandwiched the films F, the inverting motor 166 is energized to cause the small gear 164 and the large gear 162 to turn the sandwiching plates 70a, 70b by 180°, thus inverting the films F, i.e., turning the films F upside down. (See page 19, lines 19-23.)

It has not been established how the stack turner 10 of Monsees is similar at least in structure or function to the claimed means for vertically inverting, nor has it been shown how such structure or function of Monsees is equivalent.

In regard to the applied turntable, Fujishiro discloses a device having guide plates 16, 16' that are fixed on the turntable for arranging side edges of the printed sheets in a bundle. (See col. 1, lines 60-61; and Figure 2.) However, the present specification discloses an exemplary means for turning the stacked sheets as having upper and lower sandwiching plates 72a, 72b for sandwiching films F that have been transferred from the inverting unit 22 by a second transfer unit 26 and for turning the films F in the plane thereof. (See page 8, lines 19-22.) The sandwiching plates 72a, 72b have respective fingers 204a-204d and 206a-206d that are arranged in a criss-cross pattern.

(See page 14, lines 13-15.) As shown in Figure 7, the turning unit 24 basically comprises an upper turning mechanism 176 and a lower turning mechanism 178. (See page 13, lines 21-23.)

It has not been established how the stack turner turntable of Fujishiro is similar at least in structure or function to the claimed means for turning, nor has it been shown how such structure or function is equivalent.

II. THE FEATURES OF CLAIM 4 ARE NOT TAUGHT OR SUGGESTED BY MONSEES OR FUJISHIRO

Claim 4 is deemed patentable at least by virtue of its dependency on claim 1. Also, Appellant contends that the Examiner has improperly not given patentable weight to the feature of claim 4 regarding the sheets comprising films produced by cutting a rolled photosensitive medium to predetermined lengths. Appellant submits that the features of claim 4 should be given patentable weight. It is conceded that expressions relating an apparatus to contents thereof during an intended operation and inclusion of a material or article worked upon by a claimed structure are not significant in determining patentability of the apparatus claim only to the extent that such recitations do not add structural limitations to the claim. However, to the extent that a claimed recitation

adds a structural limitation, it is required of the Examiner to give this recitation patentable weight.

Appellant submits that the apparatus of Monsees is not capable of transferring films produced by cutting a rolled photosensitive medium. In Monsees, the stacking and transferring device operates on carton blanks. It is clear that the same stacking and transferring device disclosed by Monsees would not be utilized to transfer and stack a photosensitive medium, as set forth in claim 4. In contrast to a carton blank, a photo-sensitive medium has a different size and must be handled in a more delicate fashion.

Thus, Appellant submits that the features of sheets that comprise films produced by cutting a rolled photosensitive medium to predetermined lengths impart a structural limitation to the claimed invention that cannot be ignored by the Examiner. Based on the foregoing, Appellant respectfully submits that the features of claim 4 would not have been taught or suggested by the applied references.

III. DEPENDENT CLAIMS 2 AND 3

Claim 2 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Monsees in view of Fujishiro and further in view of Japanese Publication 1-210298 (hereafter JP '298). Claim 2 depends from claim 1 and, therefore, incorporates all of the features thereof. Accordingly, Appellant submits that claim 2 is patentable at least by

virtue of its dependency because JP '298 fails to make obvious those features lacking from Monsees and Fujishiro.

Moreover, claim 2 recites a cutting unit disposed between said supply means and said turning means, for cutting off corners of said sheets. The Examiner applies JP '298 for allegedly teaching this feature. However, Appellant submits that one would not have been motivated to combine the device of JP '298 to Monsees in view of Fujishiro.

As noted above, Monsees is directed to a device for flipping (or inverting) a stack of carton blanks. (See, Abstract). The carton blanks are used for making boxes. There is no teaching or suggestion in the references to cut corners off of carton blanks. Actually, one skilled in the art would have been taught away from utilizing JP '298 in the device of Monsees, because the integrity of the boxes produced in Monsees would surely have been diminished by having their corners removed. Thus, Appellant respectfully submits that one would not have been motivated to combine the device of JP '298, Monsees and Fujishiro to derive the features of claim 2.

Claim 3 is withdrawn from consideration as being drawn to a non-elected invention. However, as claim 3 depends from claim 1, Appellant respectfully requests that the claim be rejoined upon the allowance of claim 1.

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IX. CONCLUSION

For all of the foregoing reasons, Appellant respectfully submits that one would not have been motivated to combine the teachings of Monsees, Fujishiro and JP '298 so as to derive the presently claimed features. Moreover, it is also respectfully submitted that these references fail to teach or suggest each feature recited in the claims.

The present Brief on Appeal is being filed in triplicate. Unless a check is submitted herewith for the fee required under 37 C.F.R. §§1.192(a) and 1.17(c), please charge said fee to our Deposit Account No. 19-4880.

The USPTO is directed and authorized to charge all additional required fees (except the Issue Fee and/or the Publication Fee) to our Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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Date: May 17, 2004

APPENDIX

CLAIMS 1, 2 and 4 ON APPEAL:

1. (Previously Presented) An apparatus for manufacturing a plurality of sheets by stacking and feeding the sheets, comprising:
 - means for supplying stacked sheets;
 - means for turning the stacked sheets in a plane thereof;
 - means for vertically inverting the stacked sheets;
 - means for discharging the stacked sheets; and
 - means for transferring the stacked sheets to at least one of said turning means, said inverting means, and said discharge means.
2. (Previously Presented) An apparatus according to claim 1, further comprising:
 - a cutting unit disposed between said supply means and said turning means, for cutting off corners of said sheets.
3. (Withdrawn) An apparatus according to claim 1, wherein said turning means and said discharge means are combined in an unitary structure.
4. (Original) An apparatus according to claim 1, wherein said sheets comprise films produced by cutting a rolled photosensitive medium to predetermined lengths.